Exercise **1** *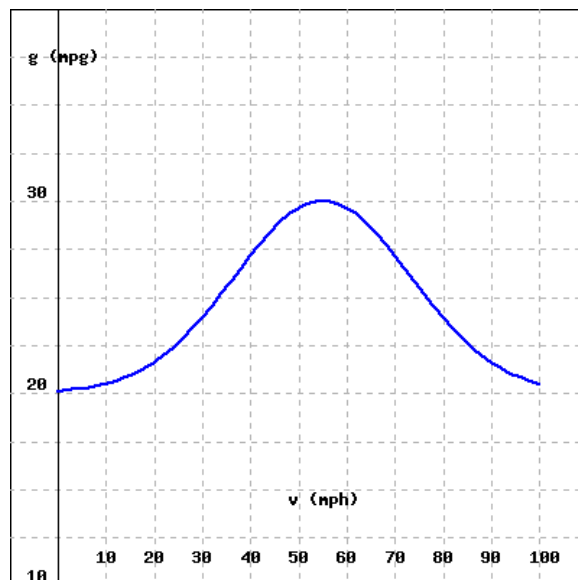The graph below shows the fuel consumption (in miles per gallon, mpg) of a car driving at various speeds (in miles per hour, mph).*

(a) *How much gas is used on a 400 mile trip at 80 mph?*

amount of gas = $\boxed{400/24}$ *gallons*

> **Hint:** *When the car is going 80 mph, it appears from the graph that the fuel consumption is approximately 24 mpg.*

(b) *How much gas is saved by traveling 60 mph instead of 70 mph on a 600 mile trip?*

saved gas = $\boxed{600/30 - 600/27}$ *gallons*

(c) *According to this graph, what is the most fuel efficient speed to travel?*

most fuel efficient speed= $\boxed{55}$ *mph*